

REMARKS/ARGUMENTS

Favorable consideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1, 2 and 5-8 are presently pending in this application, Claims 3 and 4 having been canceled, Claims 1, 2 and 5-7 having been amended, and Claim 8 having been newly added by the present amendment.

In the outstanding Office Action, the drawings were objected to under 37 CFR §1.83(a) because of informalities; Claims 1-7 were rejected under 35 U.S.C. §112, second paragraph, for being indefinite; Claims 1 and 3-7 were rejected under 35 U.S.C. §103(a) as being unpatentable over Katsuda et al. (U.S. Patent 6,116,643) in view of Cabrera et al. (U.S. Patent 6,123,359); Claims 1 and 3-7 were rejected under 35 U.S.C. §103(a) as being unpatentable over Cabrera et al. in view of Katsuda et al.; Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over Katsuda et al. in view of Cabrera et al. and further in view of Osborne et al. (U.S. Patent 5,531,474); and Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over Cabrera et al. in view of Katsuda et al. and further in view of Osborne et al.

In response to the objection to the drawings, the specification and claims have been amended to correct typographical informalities. Specifically, the term "ball-like" has been corrected to "bowl-like" as shown in Figure 1.

With regard to the rejection under 35 U.S.C. §112, second paragraph, Claims 1, 2 and 5-7 have been revised and amended to clarify the subject matter recited therein. Thus, Claims 1, 2 and 5-7 are believed to be in compliance with the requirements of the statute. Also, Claim 1 has been further amended and Claim 8 has been newly added herein. These amendment and addition in the claims find clear support in the original specification, claims and drawings, for example, Figure 1, and thus are not believed to add new matter. If,

however, the Examiner disagrees, the Examiner is invited to telephone the undersigned who will be happy to work in a joint effort to derive mutually satisfactory claim language.

Briefly recapitulating, Claim 1 of the present invention as currently amended is directed to a gas generator and the gas generator includes a single cylinder housing (4) comprising an upper lid (2) and a lower lid joined together, the upper lid having a bowl shape including a top plate (2a) portion and a side cylinder (1a) portion extending downward, the side cylinder portion being provided with a plurality of gas discharge holes (8), the lower lid having a bowl shape including a side cylinder portion and a bottom plate portion (3f) having a thickened wall portion, the lower lid including an ignitor holding portion (3a) formed integrally with the bottom plate on the thickened wall portion, the upper and lower lids comprising one of iron and steel, an ignitor held by the ignitor holding portion by caulking in a center portion of the single cylinder housing, and a plurality of gas generating devices provided around the ignitor in the single cylinder housing. By providing such a housing, the inner side cylindrical portion is supported on the thickened wall portion which is made thicker than other portion of the bottom plate, thereby providing excellent mechanical strength, and the bowl-shaped upper and lower lids provide strength for better withstanding pressure. As a result, the gas generator according to Claim 1 allows reduced thickness in the upper and lower lids other than the thickened wall portion and thus making it more compact and lighter weight without compromising its mechanical strength.

Katsuda et al. disclose a coolant/filter for an air bag gas generator. Nevertheless, Katsuda et al. do not teach "a single cylinder housing comprising an upper lid and a lower lid joined together, the upper lid having a bowl shape including a top plate portion and a side cylinder portion extending downward the side cylinder portion being provided with a plurality of gas discharge holes, the lower lid having a bowl shape including a side cylinder portion and a bottom plate portion having a thickened wall portion, the lower lid including an

ignitor holding portion formed integrally with the bottom plate on the thickened wall portion, the upper and lower lids comprising one of iron and steel” as recited in amended Claim 1.

On the other hand, Katsuda et al. only disclose the igniting means engagement portion 27 in the cylindrical member as shown in Figures 1 and 2 of Katsuda et al., and according to Katsuda et al., the cylindrical member 2 of the housing has a cylindrical shape, and the central opening 26 in the surface 21 accommodates the ignitor 4 therein.¹ As such, the ignitor 4 in the Katsuda et al. apparatus is not held by an ignitor holding portion formed integrally with the bottom plate on the thickened wall portion. Furthermore, Katsuda et al. disclose neither the thickened wall portion nor the bowl-shaped upper and lower lids as recited in Claim 1. Therefore, the structure recited in Claim 1 is believed to be clearly distinguishable from Katsuda et al.

Both Cabrera et al. and Osborne et al. disclose inflators, but fail to teach “a single cylinder housing comprising an upper lid and a lower lid joined together, the upper lid having a bowl shape including a top plate portion and a side cylinder portion extending downward the side cylinder portion being provided with a plurality of gas discharge holes, the lower lid having a bowl shape including a side cylinder portion and a bottom plate portion having a thickened wall portion, the lower lid including an ignitor holding portion formed integrally with the bottom plate on the thickened wall portion, the upper and lower lids comprising one of iron and steel” as recited in amended Claim 1. Cabrera et al. only disclose the second housing member 22 without any thickened portion supporting the ignitor holding portion thereon, and Osborne et al. only disclose a double cylinder having the central chamber 44 and annular chamber 46, not a single cylinder nor bowl-shaped upper and lower lids. Hence, the structure recited in Claim 1 is believed to be also distinguishable from Cabrera et al. and Osborne et al.

¹ See Katsuda et al., column 9, lines 28-44.

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Because none of Katsuda et al., Cabrera et al. and Osborne et al. discloses the cylindrical housing as recited in Claim 1, even the combined teachings of these cited references are not believed to render the gas generator recited in Claim 1 obvious.

Likewise, Claim 8 is believed to include subject matter substantially similar to what is recited in Claim 1 to the extent discussed above. Thus, Claim 8 is also distinguishable from Katsuda et al., Cabrera et al. and Osborne et al.

For the foregoing reasons, Claims 2 and 5-7 are believed to be allowable. Furthermore, since Claims 2 and 5-7 ultimately depend from Claim 1, substantially the same arguments set forth above also apply to these dependent claims. Hence, Claims 2 and 5-7 are believed to be allowable as well.

In view of the amendments and discussions presented above, Applicants respectfully submit that the present application is in condition for allowance, and an early action favorable to that effect is earnestly solicited.

Respectfully submitted,

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